

### **ABSTRACT OF THE DISCLOSURE**

A three dimensional computer aided design (CAD) model of a composite part which includes a plurality of plies including tool side ply(s), and bag side ply(s) is provided. The composite part is formed on a tool. The model includes a  
5 first CAD native surface representative of the shape of the tool, a second CAD native shape representative of an excess ply material and made from the first shape, and a third CAD native shape representative of the bag side ply(s) and adjacent to the joined first and second shapes. In particular, the CAD native shapes used to represent the ply(s) may be trims of a surface.